

## Department of Psychiatry

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### General Summary

Our research activities cover a wide range of topics: disorders at the psychologic and biologic levels, from childhood and adolescence, through adulthood, to the senile period. Sociologic, psychologic, physiologic, and biochemical methods were used.

### Research Activities

#### *Psychopathology, psychotherapy, and the child study group*

We have promoted research in the fields of psychotherapy, psychopathology, and child psychiatry. We have been investigating the care systems for developmental disorders in the psychiatry unit. We then began to study the attention problems of developmental disorders and psychotic disorders. This study investigated the quality of attention maintained in autism-spectrum disorders, but when many tasks were added, the quality of attention tended to decrease.

In the field of psychotherapy, we have tried to develop a prototype of dialectical behavior therapy for Japanese, diary therapy, and the Self-Psychological Psychotherapeutic Approach, which maintains the self-esteem of patients with developmental disorders.

Our social psychiatry team has investigated background factors related to depression in white-collar workers. This study suggested that male workers exhibiting perfectionism tend to undertake too much work and become exhausted when trying to cope with complex human relationships in the workplace. Female workers having the double burden of family commitment and perfectionism tend to be isolated in terms of personal relationships, leading to exhaustion both inside and outside the workplace.

#### *Morita therapy group*

Based on the “Guideline for Outpatient Morita Therapy” we started to develop a standard package of outpatient Morita therapy and a proper method for assessing the outcome of this treatment. Studies that have been continued this year include those on the relationship between panic disorder and generalized anxiety disorder, the subtypes of obsessive-compulsive disorder, “fall-in reaction” occurring in the process of mood or anxiety disorders, and the recovery factors of inpatient Morita therapy for patients with depression. A qualitative study of the life histories of female patients with obsessive-compulsive disorder has also been performed. In addition, we have been continuously promoting com-

parative studies between Morita therapy and the third generation of cognitive-behavioral therapies, such as acceptance and commitment therapy.

#### *Psychopharmacology group*

In basic research we studied: 1) the mechanisms of the central nervous system actions of a new generation of psychotropic drugs were studied with microdialysis and radioimmunoassay and 2) the brain mechanisms underlying drug dependence, impulsivity related to dependence, and next-generation medicines for drug dependence (in collaboration with NTT Communication Science Laboratories and Senshu University). In clinical research, we studied: 1) the effectiveness of second-generation antipsychotic drugs on anxiety and stress-related disorders, 2) the involvement of the medial prefrontal cortex in motivation-oriented behavior (functional magnetic resonance imaging study in collaboration with the National Institute of Radiological Science), 3) nerve growth factors involved in neurodegenerative diseases (genetic research in collaboration with the Institute of DNA Medicine), 4) genetic factors related to the therapeutic mechanism of modified electroconvulsive therapy, and 5) symptoms of mental disorders related to menstruation, atypical psychosis, and acute psychosis. Integration of basic and clinical research is a fundamental concept of the psychopharmacological group.

#### *Psychophysiology group*

Studies examined: 1) changes in sleep structures and cognitive function according to the menstrual cycle by means of the cyclic alternating pattern method, 2) multicenter research regarding the development of a novel platform on websites for sleep medicine and research, 3) the development of skills for diagnosing and treating insomnia, 4) the efficacy of group cognitive behavioral therapy for insomnia for chronic sleep disturbance and depression, 5) the Multiple Sleep Latency Test in hypersomnias of central origin.

#### *Psychogeriatric group*

First, a study of the neuropsychological evaluation of neurodegenerative disorders using brain imaging modalities, such as magnetic resonance imaging and single-photon emission computed tomography, which suggested that a reduction in hippocampal volume in Alzheimer's disease is related to delayed responses on neuropsychological tasks. Second, an epidemiological survey conducted in Itoigawa City showed no differences in mortality rates in patients with dementia, although treatment was more costly under the Long-Term Care insurance system for patients with vascular dementia than for patients with Alzheimer disease. Third, a longitudinal study of the prevalence of psychiatric disorders in patients with breast cancer was performed in collaboration with the Department of Surgery.

#### *General hospital psychiatry*

In a study of interventional therapy based on cognitive-behavioral therapy aimed at preventing recurrences of depression, a computer system and sleep evaluation methods were introduced in addition to a previous evaluation system for more effective presentations and for more precise estimation, respectively. Furthermore, an investigation of new

indications for this intervention for atypical depression, bipolar depression, and patients with insomnia was performed. Another study investigated the issues associated with mental care services for patients with cancer and for their families and medical staff.

#### *Clinical electroencephalography group*

We examined the safety and efficacy of psychotropic drugs in several forms of psychosis associated with epilepsy. We reported on 2 patients with epilepsy and reflex seizures caused by psychological state. Furthermore, we discussed the characteristics of falls in patients with epilepsy and of dental and orofacial injuries in patients with cognitive disabilities. A study was performed to prevent the recurrence of depression in patients with epilepsy.

#### *Clinical psychology group*

We have continued to discuss and study psychotherapeutic processes and the treatment techniques of cognitive behavior therapy, Morita therapy, relief care, psycho-oncology, and mental care after natural disasters. We have also examined the characteristics of developmental disorders and higher brain dysfunctions through psychological assessments. We invited Ms.Kayo Akashi to a clinical conference on skills for psychological recovery (We could not invite her last year because of the Great East Japan Earthquake), and studied more practical mental support after disasters. Furthermore, we trained graduate students of a clinical psychological course.

### Publications

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